

DETAILED ACTION

Introduction

1. This action is in response to the amendment filed on 02-28-2008. Claims 1 and 13-14 have been amended and claims 10-11 have been canceled and claims 20-24 have been added. Claims 1-9 and 12-24 are pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02-28-2008 has been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, recites " a closed chamber having a rear wall, said closed chamber inside of and separate from the mirror housing", which is unclear to the examiner what is "said closed chamber inside of" referring to.

Claim Rejections - 35 USC § 103

5. Claims 1-4, 9, 12 and 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnbull (US 2002/0032510) in view of Torii (US PAT. 5,335,283).

Consider claim 1 Turnbull teaches an interior rear-view mirror (see fig. 18) for motor vehicles comprising:

a mirror housing (see fig.18) in which at least one speaker (500,512) is arranged, said speaker being part of a bass reflex system (read on lower frequency and see page 22 [0223]-[0225]);

a chamber having a rear wall, said chamber of the mirror housing; at least one speaker at least partially positioned in closed chamber (see figs. 6, 9, 18 and see page 22 [0223]-[0225]); but Turnbull does not teach a base reflex port extending from said mirror housing into said closed chamber at a distance away from said rear wall of said closed chamber.

However, Torii teaches a base reflex port (16 in fig.1) extending from said housing (1) into said closed chamber (6) at a distance away from said rear wall of said closed chamber (see figs 1-2 and 4-5 and col.2 line 50-col. 3 line 20).

Turnbull as modified by Torii teaches a closed chamber having a rear wall, said closed chamber inside of and separate from the mirror housing; at least one speaker at

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least partially positioned in said closed chamber; and a base reflex port extending from said mirror housing into said closed chamber at a distance away from said rear wall of said closed chamber (see figs. 6, 9, 18 and see page 22 [0223]-[0225]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Torii into Turnbull to provide the low-frequency range characteristics are improved and good reproduced sounds can be obtained.

Consider claims 2-4 Turnbull teaches the interior rear-view mirror (see fig. 18) of the bass reflex system (such as low frequency) has at least one chamber that is inherently (because by the interior rear-view mirror housing) sealed airtight with respect to the installation space of the mirror housing (see fig. 18 (10) and see page 22 [0223]); and the chamber holds at least one bass reflex port (506 and see page 22 [0223]); and the bass reflex port (506) connects to an opening in a rear wall of the mirror housing (see fig. 18 (10) and see page 22 [0223]).

Consider claims 9 and 11 Turnbull teaches the interior rear-view mirror of the chamber with bass reflex port (506 and see page 22 [0223]) and speakers (500,512) is designed as a plug in module (see fig.6 (86) and see page 12 [0142]); and the interior rear-view mirror, particularly the speaker (see fig. 18 (500, 512)) can be oriented (see page 22 [0223]).

Consider claims 15-16 Turnbull teaches that the interior rear-view mirror of the bass reflex system (read on lower frequency and see page 22 [0223]-[0225]) has two speakers (see fig.18 (500,512)) located next to one another and a distance apart; and

the interior rear-view mirror (see fig. 18) of the bass reflex port (506) is located in the region between the two speakers (see 500, 512 and see page 22 [0223]).

Consider claim 17 Turnbull teaches that the interior rear-view mirror of the speaker (see fig. 18 (500, 501)) is attached to the rear wall of the chamber (see 500, 512 and see page 22 [0223]).

Consider claims 18-19 Turnbull teaches the interior rear-view mirror of the bass reflex system (read on lower frequency and see page 22 [0223]-[0225]) is located in the region between the bottom and the rear wall of the mirror housing (see fig. 18); and the interior rear-view mirror, characterized in that the bass reflex system (read on lower frequency and see page 22 [0223]-[0225]) is arranged symmetrically with respect to a transverse center plane of the mirror housing (see fig. 18).

Consider claim 20 Turnbull teaches an interior rear-view mirror for motor vehicles comprising:

a mirror housing; at least one speaker arranged in said mirror housing (see fig.18);
a chamber disposed within said mirror housing; and said at least one speaker being part of a bass reflex system (see figs. 6, 9, 18 and see page 22 [0223]-[0225]); but Turnbull does not teach a bass reflex port extending from said mirror housing into said closed chamber, said bass reflex port.

However, Torii teaches a bass reflex port extending from said mirror housing into said closed chamber, said bass reflex port (16 in fig.1)(see figs 1-2 and 4-5 and col.2 line 50-col. 3 line 20).

Turnbull as modified by Torii teaches a closed chamber disposed within said mirror housing; and a bass reflex port extending from said mirror housing into said closed chamber, said bass reflex port and said at least one speaker being part of a bass reflex system (see figs. 6, 9, 18 and see page 22 [0223]-[0225]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Torii into Turnbull to provide the low-frequency range characteristics are improved and good reproduced sounds can be obtained.

Consider claim 21 Turnbull as modified by Torii teaches the interior rear-view mirror for motor vehicles comprising: a rear wall formed as part of said mirror housing; and a rear wall formed as part of said closed chamber, said bass reflex port extending from the inside of said rear wall of said mirror housing into said closed chamber a distance away from said rear wall of said closed chamber(see figs. 6, 9, 18 and see page 22 [0223]-[0225] and discussion above claim 20).

Consider claim 22 Turnbull teaches the interior rear-view mirror for motor vehicles of comprising (see fig.17):

said at least one speaker being fastened to said rear wall of said chamber, said rear wall of said chamber transitioning into a transverse wall connected to the inside of said rear wall of said mirror housing (see figs 6,9 and 17); a first side wall extending from the bottom of said mirror housing to said transverse wall; a second side wall extending from the bottom of said mirror housing to said transverse wall, said first side wall and said second side wall extend from said rear wall of said chamber and diverge

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in the direction of said rear wall of said mirror housing(see figs. 6, 9, 18 and see page 22 [0223]-[0225] and discussion above claim 20); but Turnbull does not explicitly teach a closed chamber; and an outlet formed as part of said mirror housing, said outlet having an outlet opening, and said bass reflex port connected to said outlet opening.

However, Torii teaches a closed chamber (see fig.6); and an outlet formed as part of said r housing, said outlet having an outlet opening, and said bass reflex port connected to said outlet opening(16 in fig.1) (see figs 1-2 and 4-5 and col.2 line 50-col. 3 line 20).

Turnbull as modified by Torii teaches said at least one speaker being fastened to said rear wall of said closed chamber, said rear wall of said closed chamber transitioning into a transverse wall connected to the inside of said rear wall of said mirror housing; a first side wall extending from the bottom of said mirror housing to said transverse wall; a second side wall extending from the bottom of said mirror housing to said transverse wall, said first side wall and said second side wall extend from said rear wall of said closed chamber and diverge in the direction of said rear wall of said mirror housing; and an outlet formed as part of said mirror housing, said outlet having an outlet opening, and said bass reflex port connected to said outlet opening (see figs. 6, 9, 18 and see page 22 [0223]-[0225]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Torii into Turnbull to provide the low-frequency range characteristics are improved and good reproduced sounds can be obtained.

Consider claim 23 Turnbull teaches an interior rear-view mirror for motor vehicles comprising: a mirror housing having a rear wall; a chamber disposed within said mirror housing, said chamber being airtight with respect to said mirror housing, and said closed chamber having a rear wall; at least two speakers positioned in said mirror housing, said at least two speakers being fastened to said rear wall of said chamber (see figs. 6, 9, 18 and see page 22 [0223]-[0225]); but Turnbull does not explicitly teach a bass reflex port extending from the inside of said rear wall of said housing into said closed chamber to a distance away from said rear wall of said closed chamber, said bass reflex port and said at least two speakers being part of a bass reflex system.

However, Torii teaches a bass reflex port (see fig.1 (16)) extending from the inside of said rear wall of said housing into said closed chamber (6) to a distance away from said rear wall of said closed chamber, said bass reflex port and said at least two speakers being part of a bass reflex system (see figs 1-2 and 4-5 and col.2 line 50-col. 3 line 20).

Turnbull as modified by Torii teaches a closed chamber disposed within said mirror housing, said closed chamber being airtight with respect to said mirror housing, and said closed chamber having a rear wall; at least two speakers positioned in said mirror housing, said at least two speakers being fastened to said rear wall of said closed chamber; and a bass reflex port extending from the inside of said rear wall of said mirror housing into said closed chamber to a distance away from said rear wall of said closed chamber, said bass reflex port and said at least two speakers being part of a bass reflex system(see figs. 6, 9, 18 and see page 22 [0223]-[0225]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Torii into Turnbull to provide the low-frequency range characteristics are improved and good reproduced sounds can be obtained.

Consider claim 24 Turnbull teaches the interior rear-view mirror for motor vehicles comprising:

a transverse wall formed as part of said closed chamber, said rear wall of said closed chamber transitioning into said transverse wall; said transverse wall connected to said rear wall of said chamber at an obtuse angle; a first side wall extending from the bottom of said mirror housing to said transverse wall; a second side wall extending from the bottom of said mirror housing to said transverse wall, said first side wall and said second side wall extend from said rear wall of said chamber and diverge in the direction of said rear wall of said mirror housing; and an outlet formed as part of said rear wall of said mirror housing, said outlet having an outlet opening (506, see figs. 6, 9, 18 and see page 22 [0223]-[0225]); but Turnbull does not explicitly teaches a closed chamber and said bass reflex port connected to said outlet opening, said outlet and said bass reflex port disposed between two of said at least two speakers.

However, Torii teaches a closed chamber(see fig.1 (6)) and said bass reflex port(16) connected to said outlet opening, said outlet and said bass reflex port disposed between two of said at least two speakers (5)(see figs 1-2 and 4-5 and col.2 line 50-col. 3 line 20).

Turnbull as modified by Torii teaches a transverse wall formed as part of said closed chamber, said rear wall of said closed chamber transitioning into said transverse wall; said transverse wall connected to said rear wall of said closed chamber at an obtuse angle; a first side wall extending from the bottom of said mirror housing to said transverse wall; a second side wall extending from the bottom of said mirror housing to said transverse wall, said first side wall and said second side wall extend from said rear wall of said closed chamber and diverge in the direction of said rear wall of said mirror housing; and an outlet formed as part of said rear wall of said mirror housing, said outlet having an outlet opening, and said bass reflex port connected to said outlet opening, said outlet and said bass reflex port disposed between two of said at least two speakers (see figs. 6, 9, 18 and see page 22 [0223]-[0225]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Torii into Turnbull to provide the low-frequency range characteristics are improved and good reproduced sounds can be obtained.

6. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnbull (US 2002/0032510) as modified by Torii (US PAT. 5,335,283) as applied to claims 1-4 above, and further in view of Wylin (US PAT. 6,127,919).

Consider claim 5 Turnbull teaches the interior rear-view mirror (see fig. 18) of said bass reflex port (506) terminates a distance away from a of the chamber (see page 22

[0223]); but Turnbull does not explicitly teach that the port terminates a distance away from a rear wall of the chamber.

However, Wylin teaches that the port terminates a distance away from a rear wall of the chamber (see fig.2 (40) and col. 2 lines 48-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Wylin into Turnbull to provide a security mounting speaker and improve the sound quality for the speaker system.

Consider claims 6-8 Wylin teaches that the interior rear-view mirror (see fig. 2 (10)) of the rear wall of the chamber (40,42) joins a top wall and side walls of the chamber to a bottom and the rear wall of the mirror housing (see fig.2 (10) and col. 2 lines 48-63); and the rear wall, the top wall and the side walls of the chamber are designed as a single piece with one another (see fig.2 (10) and col. 2 lines 48-63); and the interior rear-view mirror characterized in that the front wall of the chamber opposite the rear wall is formed by a part of the rear wall of the mirror housing (see figs.2-3 (10) and col. 2 lines 48-63).

7. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnbull (US 2002/0032510) as modified by Torii (US PAT. 5,335,283) as applied to claims 1 and 12 above, and further in view of Anstee (US PAT. 4,871,953).

Consider claim 13 Turnbull teaches the interior rear-view mirror of the speaker (see fig.18 (500, 512)) can be oriented (see page 22 [0223]); but Turnbull does not teach that the interior rear-view mirror can be oriented by a memory drive.

However, Anstee teaches that the interior rear-view mirror (see fig.1 (50)) can be oriented by a memory drive (52, 60 and see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Anstee into Turnbull so that the driver will be easier to control the interior rear-view mirror.

Consider claim 14 Anstee teaches that the interior rear-view mirror (see fig.1, (50)) of the memory drive (52,60) is located in the mirror housing (50 and see col. 1 line 61-col.2 line 68).

Response to Arguments

8. Applicant's arguments with respect to claims 1-9 and 12-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schott (US PAT. 6,470,088) is cited to show other related internal rear-view mirror for motor vehicles.

10. Any response to this action should be mailed to:

Mail Stop ____ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

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Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao, Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao, Lun-See
/Lun-See Lao/
Examiner, Art Unit 2615
Patent Examiner
US Patent and Trademark Office
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571-272-7501
Date 06-06-2008

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2615